



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/714,626

11/18/2003

Ching-Hsiang Hsu

HSUC3040/EM

3236

23364

7590

10/19/2006

BACON & THOMAS, PLLC
625 SLATERS LANE
FOURTH FLOOR
ALEXANDRIA, VA 22314

EXAMINER

AJIBADE AKONAI, OLUMIDE

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/714,626	HSU ET AL.	
	Examiner	Art Unit	
	Olumide T. Ajibade-Akonai	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2617

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

DETAILED ACTION

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4, 5-9 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Demarez et al 20020151307 (hereinafter Demarez)** in view of **Applicant's admitted prior art**.

Regarding **claim 1**, Demarez discloses an island type mobile communication Arrangement (GSM network, see fig. 1, p.1, [0005]), comprising: a plurality of BTSs (BS, see fig. 1, p.1, [0005]), each corresponding to and set within a cell, and used to provide a mobile communication service to at least one mobile communication device (mobile stations MS, see p.1, [0005]) in the cell (each BS has an associated cell, see fig. 1, p.1, [0005]), a plurality of the cells forming at least one local area (LA1 and LA2, see fig. 1, p.1, [0005]) including at least one island cell (cells of LA1, see fig. 1, p.1, [0005]), each island cell having an island BTS (BS, see fig. 1, p.1, [0005]); an island BSC connected to the island BTS and used to control the operation thereof (BSS1-4, see fig. 1, p.1, [0005]); an island MSC connected to the island BSC and used to control the operation thereof (MSC, see fig. 1, p.1, [0005]), at least one mobile communication device asks

Art Unit: 2617

the island MSC for location updating while entering the at least one island cell (location update procedure, see fig. 1, p.1, [0011]); and an island VLR corresponding to and connected to the island MSC (VLR, see fig. 1, p.1, [0006]); when the at least one mobile communication device finishes location updating (location update procedure, see fig. 1, p.1, [0011]), the island VLR records a MSISDN of each mobile communication device (VLR maintains the MS for each LA, see fig. 1, p.1, [0006]).

Demarez fails to disclose wherein the island MSC provides a special service to the at least one mobile communication device in the at least one island cell by reading the MSISDNs recorded in the island VLR.

Applicant's admitted prior art, however discloses wherein an MSC provides a special service to the at least one mobile communication device in the at least one island cell by reading the MSISDNs recorded in the island VLR (see p.10, lines 9-14).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching in the Applicant's admitted prior art into the system of Demarez for the benefit of sending messages to specific locations.

Regarding **claim 2**, as applied to claim 1, Demarez, as modified by Applicant's admitted prior art discloses the claimed invention.

Demarez fails to disclose wherein the special service is a short message service.

The Applicant's admitted prior art, however, further discloses wherein the special service is a short message service (SMS, see p.10, lines 9-14).

It would therefore have been obvious to one of ordinary skill in the art to further modify Demarez using the Applicant's admitted prior art for the benefit of sending messages to specific locations.

Regarding **claim 4**, as applied to claim 1, Demarez further discloses wherein the island type mobile communication arrangement (GSM network, see fig. 1, p.1, [0005]) further comprises; at least one BSC corresponding to the at least one local area (BSS1-4, see fig. 1, p.1, [0005]), each BSC connects to the BTSs in the corresponding local area and controlling the operation thereof (BS, see fig. 1, p.1, [0005]); at least one MSC corresponding to and connected to the at least one BSC, and controlling the operation thereof (MSC, see fig. 1, p.1, [0005]); at least one VLR corresponding to and connected to the at least one BSC, and used to record the MSISDN of each mobile communication device in the cell corresponding to one of the BTSs (VLR maintains the MS for each LA, see fig. 1, p.1, [0006]); and at least one HLR corresponding to and connected to the at least one MSC, and used to record basic data and identification data of the at least one mobile communication device (inherent, since it is well known that a GSM system has a central database/HLR to store all relevant subscriber information such as MSISDN, access privileges and location information, see fig. 1, p.1, [006], [0010]-[0011]).

Regarding **claim 5**, as applied to claim 4, Demarez, as modified by Applicant's admitted prior art discloses the claimed invention.

Demarez fails to disclose wherein when one of the mobile communication devices enters into the cell corresponding to one of the BTSs, the VLR corresponding to the BTS records the MSISDN of the mobile communication device; when the mobile

Art Unit: 2617

communication device enters into the cell corresponding to the island BTS, the island VLR records the MSISDN of the mobile communication device, and the VLR deletes the MSISDN therein.

The Applicant's admitted prior art, however, further discloses wherein when one of the mobile communication devices enters into the cell corresponding to one of the BTSs, the VLR (any of cells of LA3, see fig. 1, p.5, lines 2-4) corresponding to the BTS records the MSISDN of the mobile communication device (VLR 65 records the MSISDN of the cellular phone 20 when it enters LA3, see fig. 1, p.5, lines 2-5); when the mobile communication device enters into the cell corresponding to the island BTS (VLR 61, see fig. 1, p.5, lines 8-11), the island VLR records the MSISDN of the mobile communication device (see fig. 1, p.5, lines 8-11), and the VLR deletes the MSISDN therein (see fig. 1, p.5, lines 5-6).

It would therefore have been obvious to one of ordinary skill in the art to further modify Demarez using the Applicant's admitted prior art for the benefit of sending messages to specific locations.

Regarding **claim 6**, as applied to claim 4, Demarez, as modified by Applicant's admitted prior art discloses the claimed invention.

Demarez fails to disclose wherein the at least one MSC is coupled to at least one EIR, HLR, AUC, and GMSC.

The Applicant's admitted prior art, however, further discloses wherein the at least one MSC is coupled to at least one EIR, HLR, AUC, and GMSC (HLR 65 and

Art Unit: 2617

67, EIR 70, AUC 74, GMSC 76, see fig. 2, p.5, lines 17-18, p.6, lines 3-4 and lines 16-17 and p.7, line 18).

It would therefore have been obvious to one of ordinary skill in the art to further modify Demarez using the Applicant's admitted prior art for the benefit of sending messages to specific locations.

Regarding **claim 7**, as applied to claim 6, Demarez, as modified by Applicant's admitted prior art discloses the claimed invention.

Demarez fails to disclose wherein an MSC is coupled to the at least one EIR, HLR, AUC, and GMSC.

The Applicant's admitted prior art, however, further discloses wherein an MSC is coupled to the at least one EIR, HLR, AUC, and GMSC (see fig. 2, p.8, line 2).

It would therefore have been obvious to one of ordinary skill in the art to further modify Demarez using the Applicant's admitted prior art for the benefit of sending messages to specific locations.

Regarding **claim 8**, Demarez further discloses wherein the island type communication arrangement is a kind of cell based communication arrangement (see fig. 1, p.1, [0005]).

Regarding **claim 9**, as applied to claim 8, Demarez further discloses wherein the cell based communication arrangement is a GSM (GSM network, see fig. 1, p.1, [0005]).

Art Unit: 2617

Regarding **claim 11**, as applied to claim 8, Demarez further discloses wherein the cell based communication arrangement is a third generation mobile communication arrangement (GSM network, see fig. 1, p.1, [0005]).

Regarding **claim 12**, as applied to claim 1, Demarez further discloses wherein the mobile communication device is a cell phone (mobile station MS, see p.1, [0005]).

Regarding **claim 13**, as applied to claim 1, Demarez further discloses wherein the mobile communication device is a PDA (inherent, since it is well known that a mobile station MS in a GSM network is capable of functioning as a phone, fax sender and a personal organizer, see p.1, [0005]).

Regarding **claim 14**, as applied to claim 1, Demarez further discloses wherein the mobile communication device is a smart phone (inherent, since it is well known that a mobile station MS in a GSM network is capable of connecting to the internet so that the users can access voicemail, email, WebPages and other files, see p.1, [0005]).

4. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Demarez et al 20020151307 (hereinafter Demarez)** in view of **Applicant's admitted prior art** as applied to claims 1 and 8 above, and further in view of **Paakkonen (20040121818)**.

Regarding **claim 3**, as applied to claim 1, Demarez, as modified by Applicant's admitted prior art discloses the claimed invention except wherein the special message is a multimedia message service.

In the same field of endeavor, Paakkonen discloses wherein the special message is a multimedia message service sending a message with multimedia content to a mobile station, see fig. 1, p.2, [0024]).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching of Paakkonen into the system of Demarez and the Applicant's admitted prior art for the benefit of sending MMS messages simultaneously with call setup information.

Regarding **claim 10**, as applied to claim 8, Demarez, as modified by Applicant's admitted prior art discloses the claimed invention except wherein the cell based arrangement is a UMT.

Paakkonen, however, further discloses wherein the cell based arrangement is a UMT (UMTS, see fig. 1, p.2, [0024]).

It would therefore have been obvious to one of ordinary skill in the art to further modify the combination of Demarez, the Applicant's admitted prior art and Paakkonen for the benefit of sending MMS messages simultaneously with call setup information.

Response to Arguments

5. Applicant's arguments filed 7 August 2006 have been fully considered but they are not persuasive.

Regarding claim 1, applicant asserts that Demarez et al fails to disclose or suggest "an island type mobile communication arrangement in which, while entering an island: the cellular phone asks the island MSC (e.g GSM) to update location; and upon

Art Unit: 2617

completion of location updating, the island VLR records the MSISDN of the cellular phone". The examiner respectfully disagrees and maintains that Demarez et al provides more than adequate support for the claimed limitations. Demarez et al discloses a plurality of cells in different location areas being served by a BSS, for example BSS3 serving some cells in location area LA 2 and LA 1 (see fig. 1, p.1, [0005]). This clearly meets the claimed limitation of "an island type mobile arrangement comprising a plurality of BTSs, each BTS corresponding to and set within a cell". Demarez et al also discloses a location update procedure when the MS moves from a RA of one cell to the RA of another cell (see p.1, [0011]) and a VLR that records a MSISDN of each mobile communication device. The VLR is responsible for maintaining the information of the MS in the LAs during location updating (see fig. 1, p.1, [0006], [0011]). This clearly meets the limitation of "an island type mobile communication arrangement in which, while entering an island: the cellular phone asks the island MSC (e.g GSM) to update location; and upon completion of location updating, the island VLR records the MSISDN of the cellular phone". Claims 1-14 thus stand rejected.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

De Oliveira 6763004 discloses a system and method for paging mobile stations in a radio telecommunications network.

Masuda et al 20010005676 discloses a radio switching system providing service restraining move of mobile subscriber, and mobile switching center adapted therefor.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olumide T. Ajibade-Akonai whose telephone number is 571-272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER